

CLAIMS

- 5 1. A chemical entity comprising more than one chemical components linked to an amino acid sequence comprising a cellulose binding domain.
2. A chemical entity according to claim 1 wherein all the chemical components are linked directly to said amino acid sequence comprising a cellulose binding domain.
- 10 3. A chemical entity according to claim 1 wherein at least one chemical is linked indirectly via a linking region to said an amino acid sequence comprising a cellulose binding domain.
- 15 4. A chemical entity according to claim 3 wherein at least one chemical component is linked directly to said amino acid sequence comprising a cellulose binding domain and at least one chemical component is linked indirectly via a linking region to said amino acid sequence comprising a cellulose binding domain.
- 20 5. A chemical entity according to claim 3 wherein all the chemical components are linked indirectly via a linking region to said amino acid sequence comprising a cellulose binding domain.
- 25 6. A chemical entity according to claims 3-5 wherein said linking region is a polyreactive linking region.
- 30 7. A chemical entity according to claims 1- 6, wherein said amino acid sequence comprising a cellulose binding domain comprises at least one Lysine amino acid.
- 35 8. A chemical entity according to any of the preceding claims wherein said chemical component is selected from the group consisting perfumes, hygiene agents, insect control agents, softener compounds, soil release polymers, bleaching agents, dye fixatives agents, brighteners, enzymes, latex, resins and/or mixtures thereof.

9. A chemical entity according to claim 8 wherein said chemical component is selected from perfumes, hygiene agents, insect control agents, bleaching agents and/or mixtures thereof.

Sub 5  
A2 10. A chemical entity according to claim 9 wherein said perfume is selected from an aldehyde based compound, preferably a citral, Helional™, alpha-hexyl-cinnamaldehyde, hydroxycitronellal, Lillal™ (p-tert.butyl-alpha-methyldihydrocinnamaldehyde), methyl nonyl acetaldehyde, 1-decanal, benzaldehyde, florhydral, 2,4-dimethyl-3-cyclohexen-1-carboxaldehyde; cis/trans-3,7-dimethyl-2,6-octadien-1-al; heliotropin; 2,4,6-trimethyl-3-cyclohexene-1-carboxaldehyde; 2,6-nonadienal; alpha-n-amy l cinnamic aldehyde, P.T. Bucinal, lyral, cymal, methyl nonyl acetaldehyde, hexanal, trans-2-hexenal; a ketone based compound, preferably a allylionone, alpha-ionone, beta-ionone, isoraldein (isomethyl- alpha-ionone), methylionone, Alpha Damascone, Delta Damascone, Iso Damascone, Carvone, Gamma-Methyl-Ionone, Iso-E-Super, 2,4,4,7-Tetramethyl-oct-6-en-3-one, Benzyl Acetone, Beta Damascone, Damasconone, methyl dihydrojasmonate, methyl cedrylone; and/or mixtures thereof.

11. A chemical entity according to claim 9 wherein said hygiene agent is selected from pentadecanol, cinamaldehyde, ionone, glutaraldehyde, citronellal and/or mixtures thereof.

12. A chemical entity according to claim 9 wherein said insect control agent is selected from an aldehyde based compound, preferably Citronellal, Rotundial and/or mixtures thereof.

13. A chemical entity according to claim 9 wherein said bleaching agent is selected from Tetra Acetyl Ethylene Diamine, Nonanoyl benzene sulphonate, Phenolsulfonate ester of N-nonanoyl-6-aminocaproic acid and/or mixtures thereof.

- Sub 35  
A3 14. A chemical entity according to claims 1-6 wherein the amino acid sequence comprising a cellulose binding domain is selected from the group consisting of CBDs CBHII from *Trichoderma reesei*, CBDs CenC, CenA and Cex from

*Cellulomonas fimi*, CBD CBHI from *Trichoderma reesei*, CBD Cellulozome from *Clostridium cellulovorans*, CBD E3 from *Thermonospora fusca*, CBD-dimer from *Clostridium stecorarium* (NCIMB11754) XynA, CBD from *Bacillus agaradherens* (NCIMB40482), CBD family 45 from *Humicola insolens*, and/or mixtures thereof

15. A chemical entity according to claim 14 wherein the amino acid sequence comprising a cellulose binding domain is CBD family 45 from *Humicola insolens*.

16. A chemical entity according to claim 7 wherein said amino acid sequence comprising a cellulose binding domain comprising at least one Lysine amino acid, is selected from CBDs CenC, CenA and Cex from *Cellulomonas fimi*, CBD Cellulozome from *Clostridium cellulovorans*, CBD E3 from *Thermonospora fusca*, CBD-dimer from *Clostridium stecorarium* (NCIMB11754) XynA and/or CBD from *Bacillus agaradherens* (NCIMB40482).

17. A chemical entity according to claims 2-5 wherein the linking region is polyethylene glycol derivative.

18. A chemical entity according to claim 17 wherein said polyethylene glycol derivative is a t-BOC-NH-PEG-NH<sub>2</sub> polymer.

19. A chemical entity according to claim 6 wherein the polyreactive linking region is an amino-containing compound.

20. A chemical entity according to claim 19 wherein said amino-containing compound is a peptidic polymer.

21. A chemical entity according to claim 20 wherein said peptidic polymer comprises amino acids selected from tyrosine, lysine, cysteine and/or mixtures thereof.

22. A chemical entity according to any of the preceding claims wherein the linking between a chemical component and an amino acid sequence

comprising a cellulose binding domain, the linking region and/or polyreactive linking region is achieved via a weak bond.

23. A chemical entity according to claim 22 wherein said chemical component is selected from perfumes, hygiene agents, insect control agents and/or mixtures thereof.

24. A laundry detergent and/or fabric care composition comprising a chemical entity according to any of the preceding claims and another laundry detergent and/or fabric care ingredient.

25. A laundry detergent and/or fabric care composition according to claim 24 which is in the form of an additive, a pre-treatment, a post-treatment, a soaking treatment and/or a rinsing treatment composition.

26. A fabric care composition according to claims 24-25 comprising a cationic surfactant comprising two long alkyl chain lengths.

27. A method of treating a fabric with a chemical entity according to claims 1-23 or with a laundry detergent and/or fabric care composition according to claims 24-26 for fabric care, including anti-wrinkle, anti-bobbling and anti-shrinkage properties to fabrics, for static control, fabric softness, fabric freshness, colour appearance and fabric anti-wear properties and benefits.

28. A method of cleaning a fabric with a chemical entity according to claims 1-23 or with a laundry detergent and/or fabric care composition according to claims 24-26 for fabric cleaning and/or fabric stain removal and/or fabric whiteness maintenance and/or fabric dye transfer inhibition.

29. A method of treating a fabric with a chemical entity according to claims 1-23 or with a laundry detergent and/or fabric care composition according to claims 24-26 for sanitisation and/or insect control.